

T6 Chassis

Zugang zum Servicemenü:

„MENU“ – „9“ – „3“ – „0“ – „1“

T6 CHASSI SERVICE MENU PARAMETERS

OPTION 0

STANDBY Customer : Customer mode ; Factory : Factory mode.
TEXT Teletext type : TOP:Toptext Fast :Fastext ; Fast_Top :Fastext and Toptext ;None
TEXT PAGE Number of Text Pages 10 , 250, 1000
TUNER TH_DTT75412_TUNER, AL_TDAG4XD01A_TUNER
Not: This item should be set depending on the tuner type on the chassi
PLUG PLAY Demo mode. Will be set as ON after all controls and adjustments are completed.
HDCP VERIFY In Test and Verification process, check "OK" sign after confirmation with the right arrow button on RC.
ACTIVE ANTENNA POWER AVAIL :Available ; NAVAIL :Not, Available.
Not: Will be set as "OFF" on sets produced for UK. For the other sets it will be set as "ON" unless specified by the customer
START UP LOGO GRUNDIG ; POLAROID ; OFF
Not: This item will be set as "GRUNDIG" for Grundig brand sets
For Polaroid brand sets, it will be set as "POLAROID"
For all other brands it will be set as "OFF"
0.1 WATT: ON ; OFF
Not: Will be set as "ON" for 0.1Watt sets, and "OFF" for all other sets
CUSTOMER Will be set as "0"

OPTIONS 1

BLUEBACK Blueback feature ON ; OFF
PANORAMA Panorama feature AVAIL :Available ; NAVAIL :Not Available.
CINEMA PANORAMA AVAIL :Available ; NAVAIL :Not, Available.
REMOTE Should be set depending on the remote control of the TV set
37 Key ; 44 Key; 50 Key
KEYPAD Keypad type. ONE KEY, FOUR KEYS, SEVEN KEYS
HOTEL Simple Otel TV feature AVAIL :Available ; NAVAIL : Not Available
HOTEL VOL Maximum volume level for Otel TV sets. Should be set as 35.
7 SEGMENT DISP AVAIL :Available ; NAVAIL :Not, Available.
ECO TV ON ; OFF
Not: This item should be set depending on the feature. For ECO TV sets, this item should be set as "ON"
WSS AVAIL :Available ; NAVAIL :Not, Available.

OPTIONS 2

PC AVAIL :Available ; NAVAIL : Not Available
HDMI 1 AVAIL :Available ; NAVAIL : Not Available
AV AVAIL :Available ; NAVAIL : Not Available
S-Video AVAIL :Available ; NAVAIL : Not Available
SCART AVAIL :Available ; NAVAIL : Not Available
YPbPr AVAIL :Available ; NAVAIL : Not Available
DVD AVAIL :Açık ; NAVAIL : Kapalı
USB AVAIL :Available ; NAVAIL : Not Available
Note: Above items should be set according to the product features.

SOUND OPTIONS

L AVAIL :Available ; NAVAIL : Not Available
Headphone AVAIL :Available ; NAVAIL : Not Available
ATS Automatic Tuning System AVAIL :Available ; NAVAIL : Not Available
Not: For all domestic and all Toshiba-Daewoo-Grundig products set as AVAIL. For other products as NAVAIL unless specified by the customer.
SRS TruSurround XT AVAIL :Available ; NAVAIL : Not Available
HIDEV MONO Should be set as NAVAIL
DOLBY DECODING AVAIL :Available ; NAVAIL : Not Available

IF SETTINGS

Thomson Tuner
VHF AGC : 6
UHF AGC : 0
LPRIME AGC : 8

**** None of the items will be modified in other menus.**

SAPPHIRE TARGET SPECIFICATIONS (MPEG2)		16" 16.5" 21.5" 21.8" HD Ready
Concept Properties		
Scaler IC		MStar Sapphire
HD Ready		HD READY
DeInterlacer		3D
Comb Filter		3D
BACK CONNECTIONS		
Antenna		1 (analog reception optional)
Scart		1 (Full)
S-VHS In		-
Video In (RCA)		1
Audio In (2 RCA)		1
Audio Out (2 RCA)		-
Progressive YPbPr In (3 RCA)		-
Progressive Audio In (2 RCA)		-
DVI		-
HDMI		1
PC Audio (L, R)		1
D-Sub 15 (VGA Connector)		1
SPDIF Coaxial		-
Headphone		-
FRONT\SIDE CONNECTIONS		
S-VHS In		-
Video In (RCA)		-
Audio In (2 RCA)		-
HDMI		-
USB		1 OPT.
CI		1
Headphone		Opt.
VIDEO & GRAPHICS IN\OUT		
CVBS In		2 (1 via RCA, 1 via Scarts)
RF In		1
Y\C In		1 via Scart
RGB+FB In-Video		1 through Scart
RGB+HS, VS In -Graphics		1 through DSUB-15
YPbPr In (Progressive)		via VGA
HDMI In		1
YUV In		via VGA
CVBS Out		via scart
AUDIO IN\OUT		
Stereo L, R In		3 (1 via RCA, 1 via Scart, 1 via PC Audio)
Stereo L, R Out		1 via scart
Subwoofer Out		NO
S\PDIF In		-
S\PDIF Out		-
Audio Output Power (min)		2x3 W
Number of speakers		2 (L+R)
ANALOG FRONT END		
Type		Hybrid Tuner

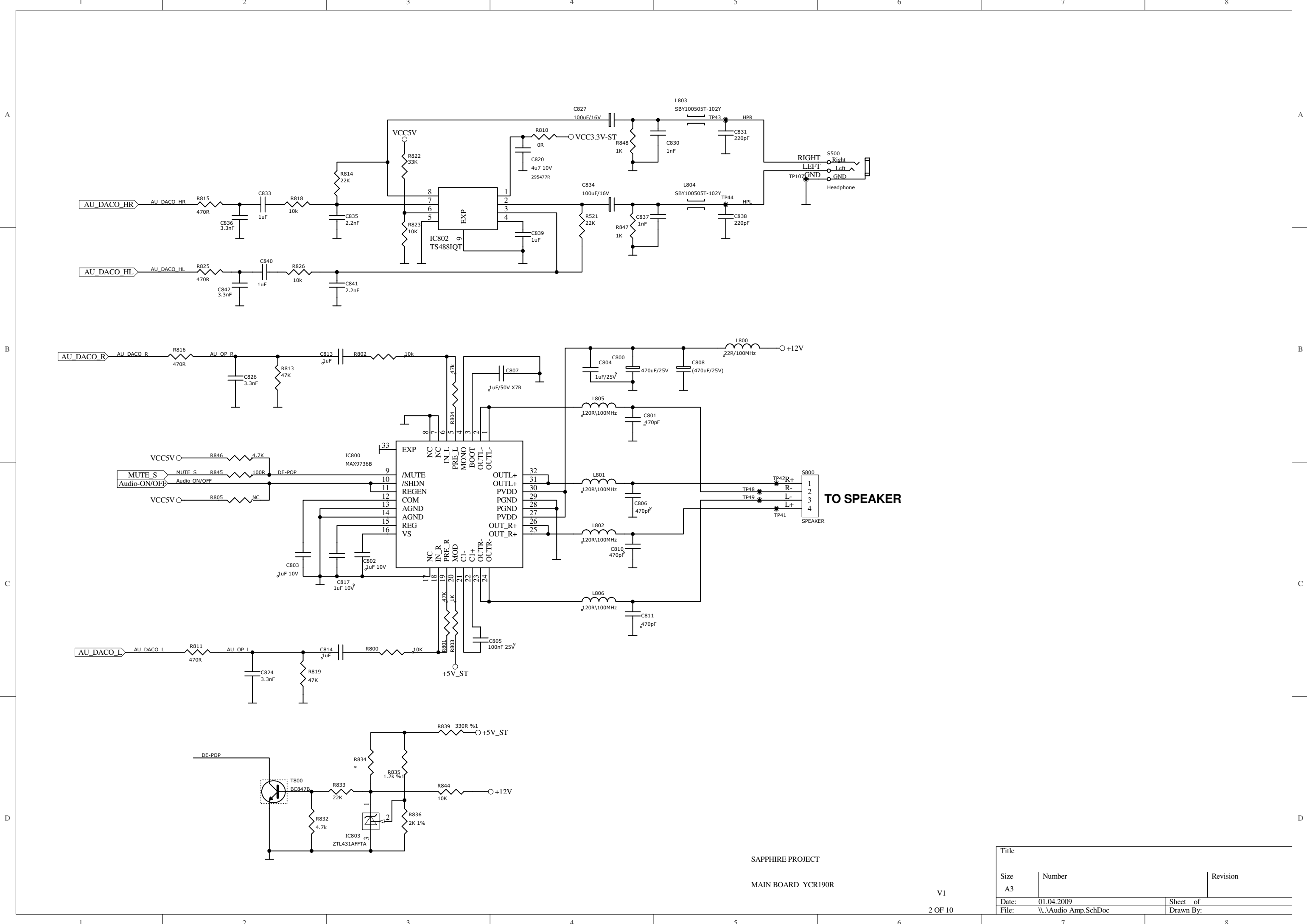
Multisystem		Yes
Receiving System		PAL/SECAM BG/DK/I/L/L', NTSC 4.43, 3.58 via scart
Input Freq. Range (MHz)		VHF (48,25-463,25MHz) UHF (471,25-855,25MHz)
Tune down to 45,25MHz		YES
Tune up to 855,25MHz		
Input Connector		IEC 169-2, Female
Aerial Input Impedance		75 Ohm (unbalanced)
Tuning System		FST
Tuning Control		PLL
Antenna Loop Through		NO
RF Modulator		NO
Channel Bandwidth		6/7/8 MHz Switchable
ATS (Automatic Tuning System)		Optional in Service Menu
Manual Search		YES
AFT (Auto Fine Tuning)		YES
DIGITAL FRONT END		
Demodulation		ETS 300 744 (DVB-T), COFDM
Hierarchical Modes		Hierarchical - Non hierarchical
Transmission Mode		
Constellations		ALL ALLOWED
Guard Interval		ALL
Input Frequency Range		
Channel Bandwidth		
Input Connector		IEC 169-2, Female
Aerial Input Impedance		75 Ohm (unbalanced)
Signal Level		-80 dBm to -20dBm
Convolutional Code Rates		ALL ALLOWED
Channel Range		
MPEG Transport Stream A/V Decoding		
Transport Stream		Transport of AVC Video ITU-T Rec H.222 / ISO/IEC 13818-1
Profile Level		MPEG-2 MP@ML, MPEG-2 MP@HL,
Aspect Ratio		4:3, 16:9, Pan&Scan, Letterbox
Video Resolution		576i, 576p, 720p, 1080i
Audio Decoding		AC3 (Dolby Digital) – USB harici versiyonlarda opsiyonel MPEG1 Layers 1,2
AFD Decoding		YES
CONDITIONAL ACCESS & COMMON INTERFACE		
Common Interface		YES
Embedded Cond. Access		NO
Top Up TV Compliant		YES
Smart Card		NO
VIDEO & GRAPHICS PROCESSING		
Comb Filtler		3D
DLTI, DCTI		YES
Noise Reduction		YES

Sync On Green (SOG) support on graphics		YES
Gamma Correction		YES
Main Picture	De-interlacing	3D Frame Based Motion Adaptive
	Noise Reduction	YES
	Scaling	YES
Chroma Decoding	Analog/Digitized	Digitized
	Standard	PAL, SECAM, NTSC
Color Controls	Brightness	YES
	Contrast	YES
	Color\Saturation	YES
	Color Temperature	YES
	Tint	YES
HDMI Receiver	HDMI 1.3 Compliant	YES
	CEC	NO
	Resolution	Video upto 1080p@60 HZ
	HDCP Support	YES
AV PIP		NO
2 Tuner PIP		-
Txt Pages		100 pg for analog / 400 pg for digital
Fastext		YES
Toptext		OPT via service menu
VPS/PDC/CNI		YES
WSS		YES
AUDIO PROCESSING		
Standart		BG, DK, L\L', I
(BG, DK, L\L', I, M, N, BTSC)		
Stereo Decoding		YES
(German A2, Nicam, BTSC)		
Dynamic Bass		NO
Equalizer		YES
Dual I-II		YES
Surround Effect		YES
SRS		Opt. (cost-up)
Effect\Spatial		YES
APPLICATIONS		
Menu System		Beko System, Grundig System
Remote Control		Beko RC, Grundig RC
Supported Menu Languages		Minimum: Cro, Cze, Dan, Dut, Eng, Fin, Fra, Ger, Hun, Ita, Nor, Pol, Slk, Sln, Spa, Swe, Tur
Picture Formats (4:3, 16:9, 14:9, Panorama, LetterBox, Subtitle)	4:3	YES
	14:9	YES
	16:9	YES
	Panorama	YES
	Letterbox	YES
	Subtitle	YES
	Auto	YES
Number of Program Storage		100 analog / 400 digital
No Ident Timer		YES
Picture Freze		YES

AVL (Automatic Volume Level)		YES
Swap/Zapp		Optional in Service Menu
Child Lock / Panel Lock		YES
Picture Format Switching Through Scart (Pin 8)		YES
Auto RGB Detect Through Scart1 (Pin 16)		YES
DDC Support		YES
Timer		On/Off
Picture Smart Modes		YES
Sound Smart Modes		YES
Simple Hotel Mode		OPT.
Software Update		YES (via VGA)+USB
Wake Up in PC	Stby to On in PC Mode when last watched is PC	YES
	Stby to On automatically when PC signal is available	NO
SUPPORTED OUTPUTS		
FOR DISPLAYS		
Single TTL support	24-bit	YES
Dual TTL support	48-bit	NO
Single 10-bit TTL support	30-bit	NO
Dual 10-bit TTL support	60-bit	NO
Single LVDS support (8-bit)		YES
Dual LVDS support (8-bit)		YES
Single LVDS support (10-bit)		YES
Dual LVDS support (10-bit)		NO
Timing Control Support		NO
Balance Board / Inverterless Panel Support		NO
POWER SUPPLY		
PSU Type		Internal
Ratings	18,5"	
	16"	
	21,6"	
Input Range		140V-265V, 50, 60Hz
St-By Power Consumption		< 1W
REGULATIONS		
EMC		EN55020
		EN55013
		EN55022 (with PC)
SAFETY		EN60065
CABINET		
Keyboard	On\Off Main Switch	OPT
	UP	YES
	Down	YES
	Select	YES
	Stand-By	YES
LED	Single color/Single Intensity	OPT
	Single Color/Double Intensity	YES
	Multi color	NO
	On Timer Led	NO

VIDEO & GRAPHICS PROCESSING (USB)		
Chroma Decoding		PAL, SECAM, NTSC
Comb Filter		3D (PAL/NTSC)
MPEG1 Encoding		NO
MPEG2 Encoding		NO
MPEG1 decoding (I frames only)		YES
MPEG2 decoding		YES
MPEG4 decoding (ASP)		YES
DV decoding		No
MJPEG decoding		No
MP3 decoding		YES
AAC decoding		YES
WMA decoding		YES
WAV decoding		NO
JPEG decoding		YES
GIF decoding		No
Output		<720p
APPLICATIONS (USB)		
Screen Saver		NO
Supported Menu Languages		Supported TV languages
Timer Recording	Manuel\Automatic	NO
	Timing Entry Upto	NO
One Touch Recording		NO
VPS/PDC Recording	(if VBI data given with (CVBS) video signal)	NO
Record one channel/ watch another		No
Time Shift (Live Pause TV)		No
Fast FWD-REW in Time shift mode		No
Slow FWD-REW in Time shift mode		No
Fast <input type="checkbox"/> icture search (forward and reverse)		2x / 4x / 8x / 16x / 32x
Slow motion (forward and reverse)		1/2, 1/4, 1/8, 1/16
<input type="checkbox"/> ict <input type="checkbox"/> icture		YES
Picture by <input type="checkbox"/> icture playback		1/2, 1/4, 1/8, 1/16 (forward)
Repeat		Title/chapter/sequence A – B
File Browser		Yes
File editing	Delete	Yes
	Splitting	Yes
	Playlist	Yes
	Multi Delete (Title)	Yes
USB Connection 2.0		YES
Upload from PC		YES
External HDD Connection		YES
SUPPORTED FILES (USB)		
.mp3		YES
.wav		NO
.wma		YES
.m4a		YES
.jpg		YES
.bmp		YES
.png		YES
.gif		NO
.tiff		NO

.3gp		NO
.mov		NO
divx (4/5/6.x)		YES
.mpg		YES
.mpe		YES
.vob		YES
.dat		YES
.trp		YES
.ts		YES
.avi		YES
.mp4		YES
.txt		YES



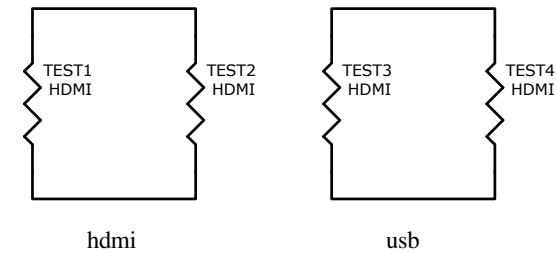
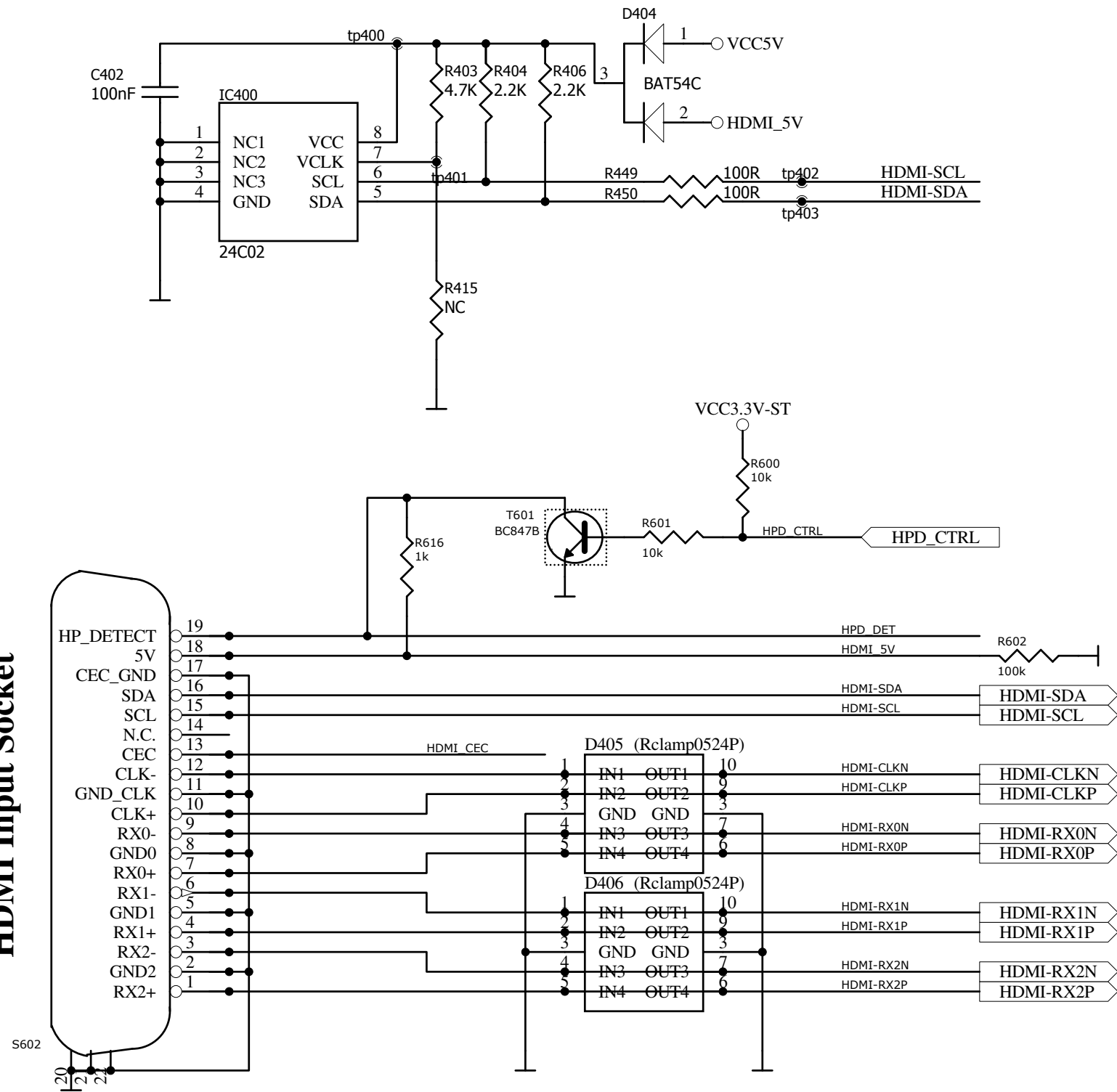
SAPPHIRE PROJECT

MAIN BOARD YCR190R

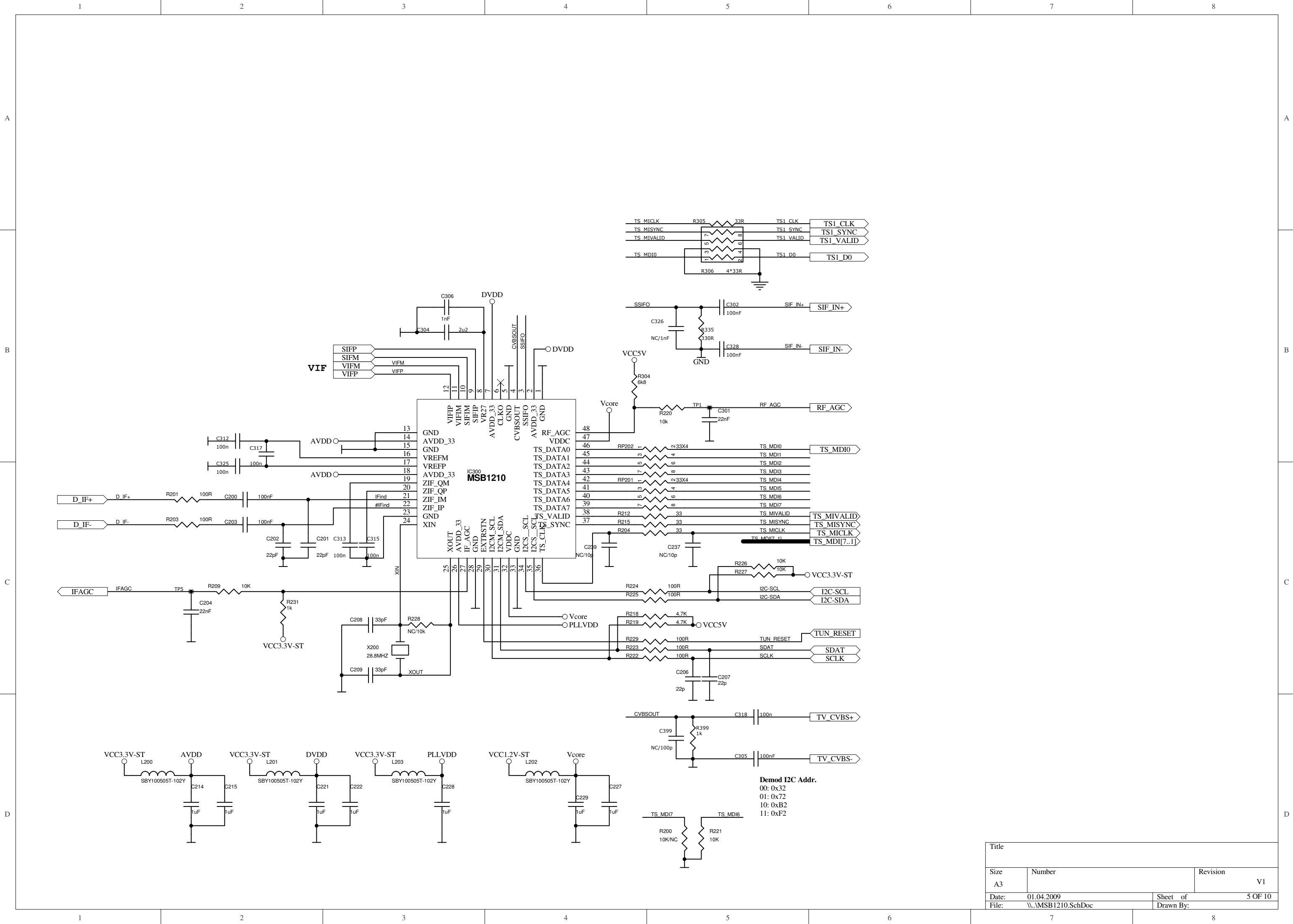
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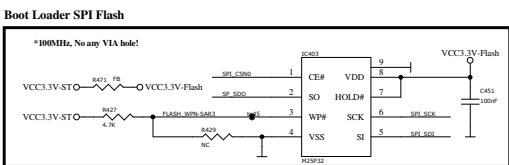
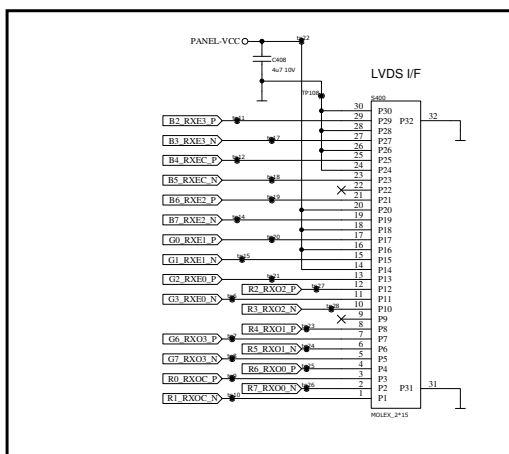
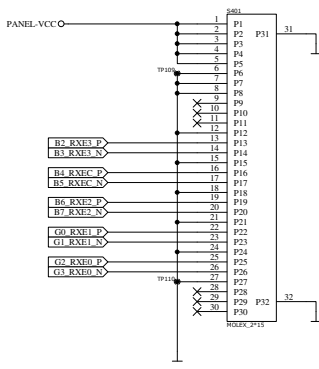
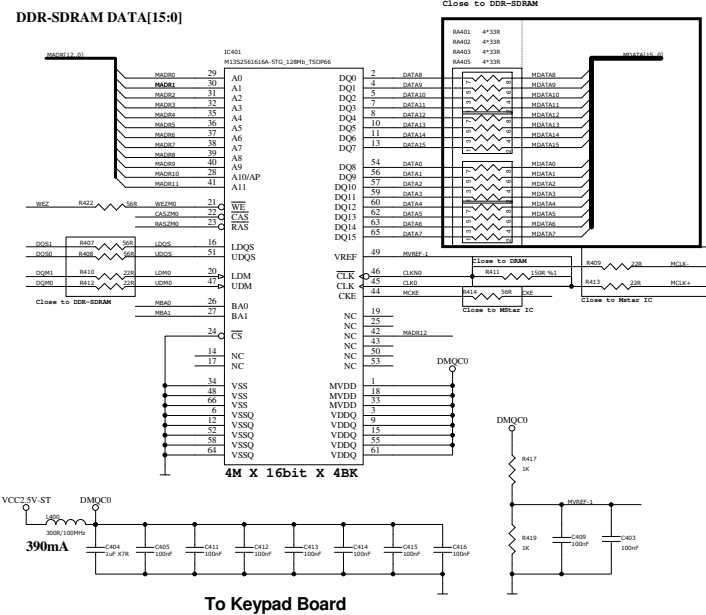
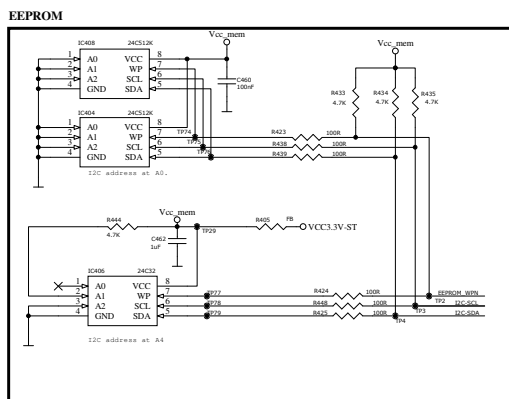
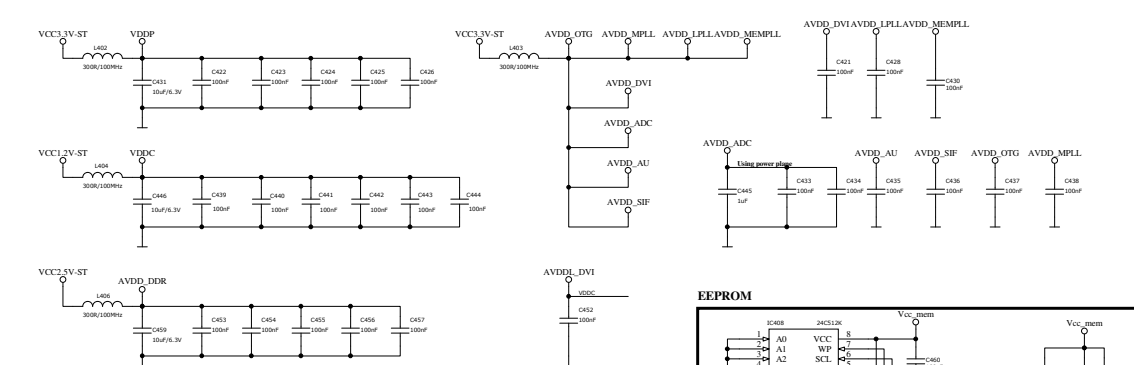
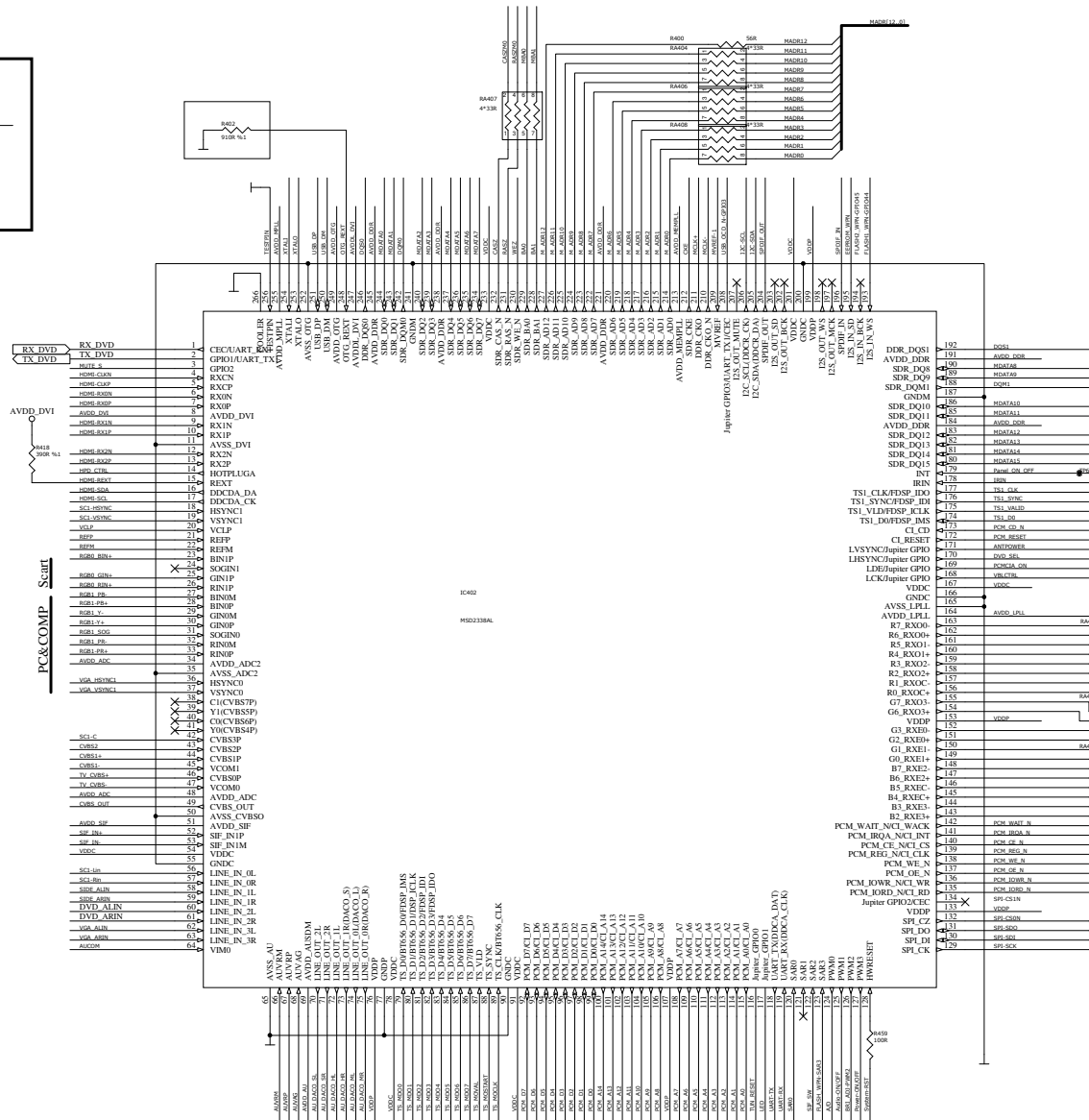
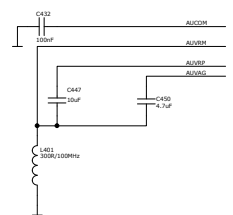
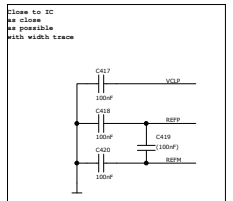
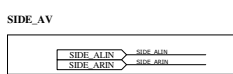
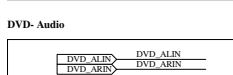
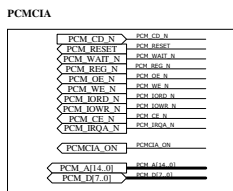
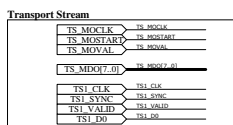
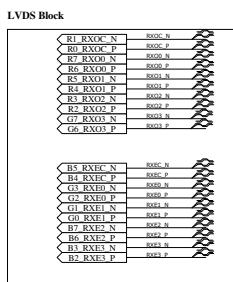
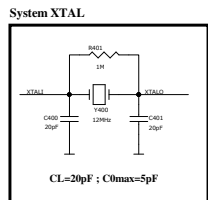
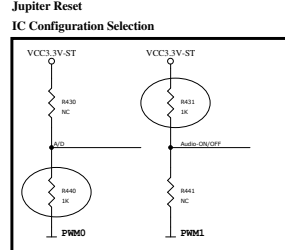
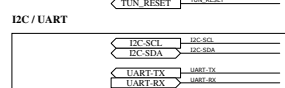
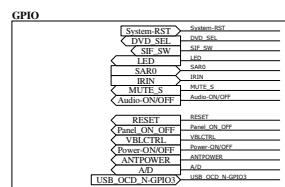
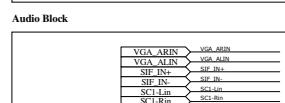
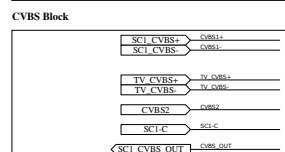
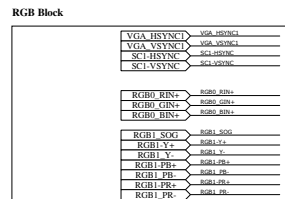
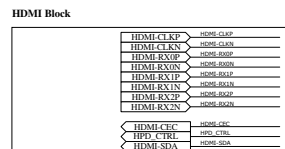
HDMI Input Socket

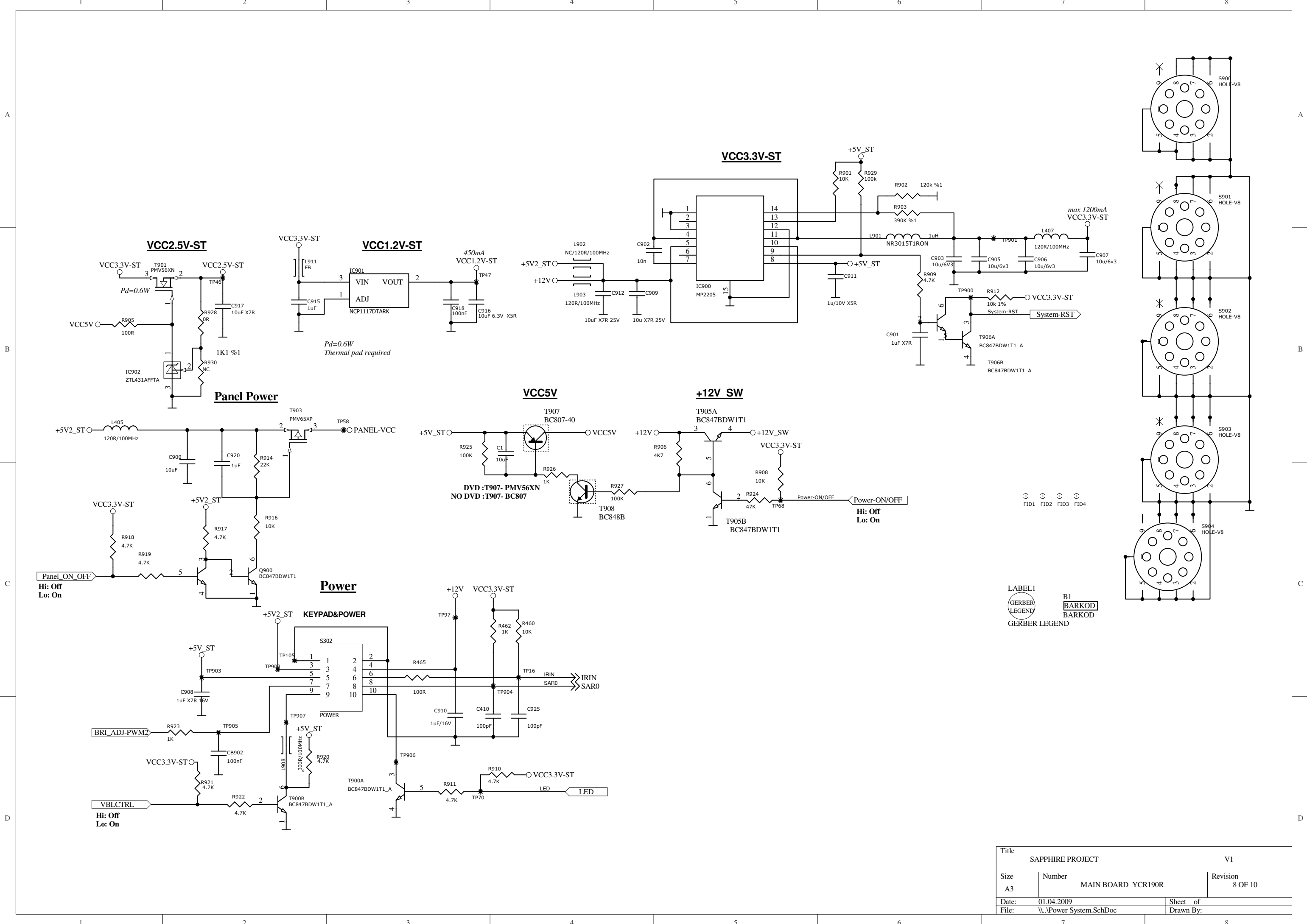


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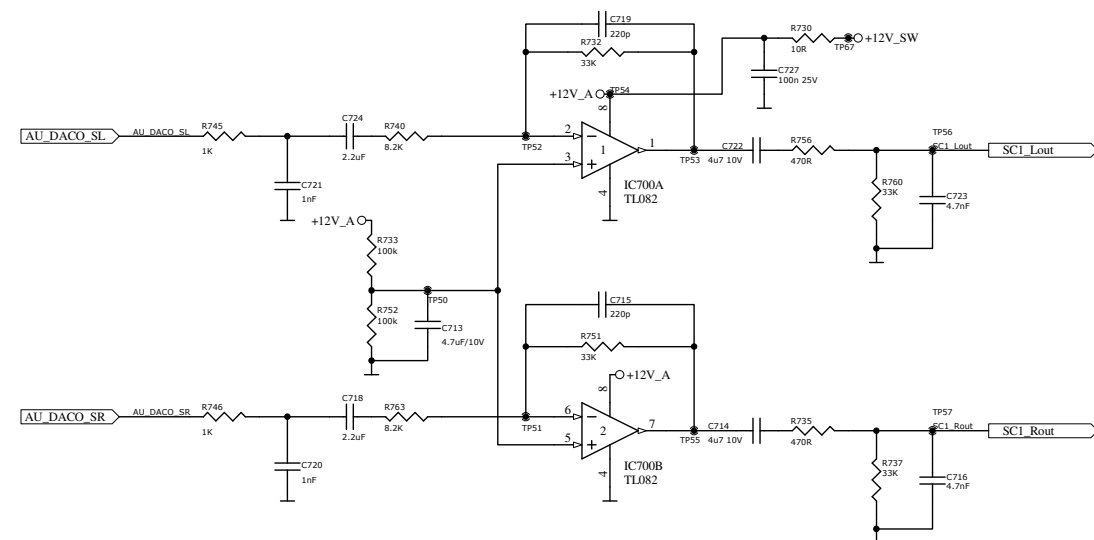
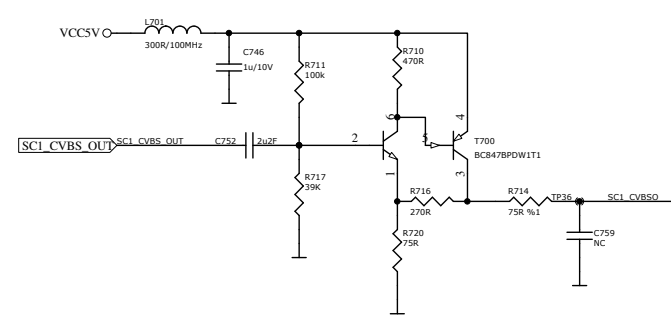
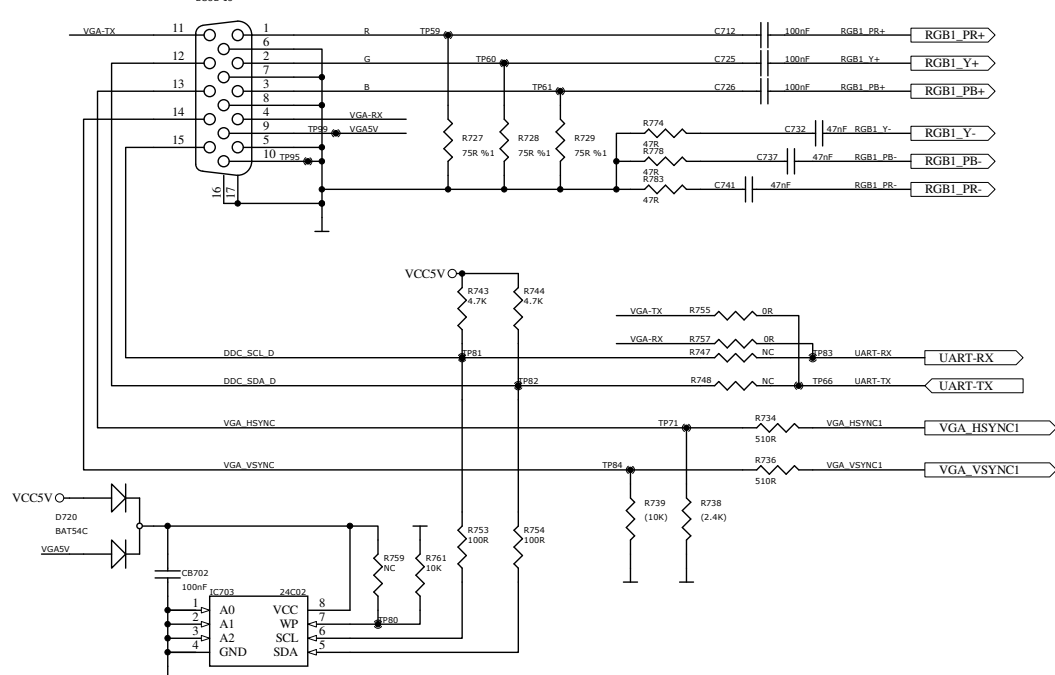
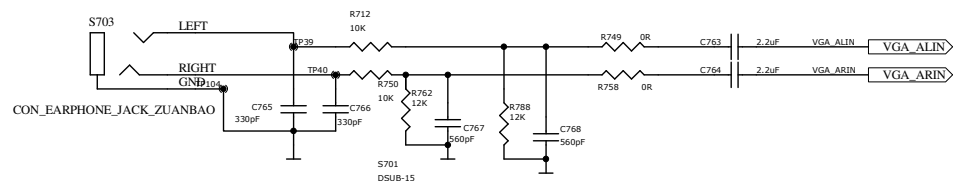
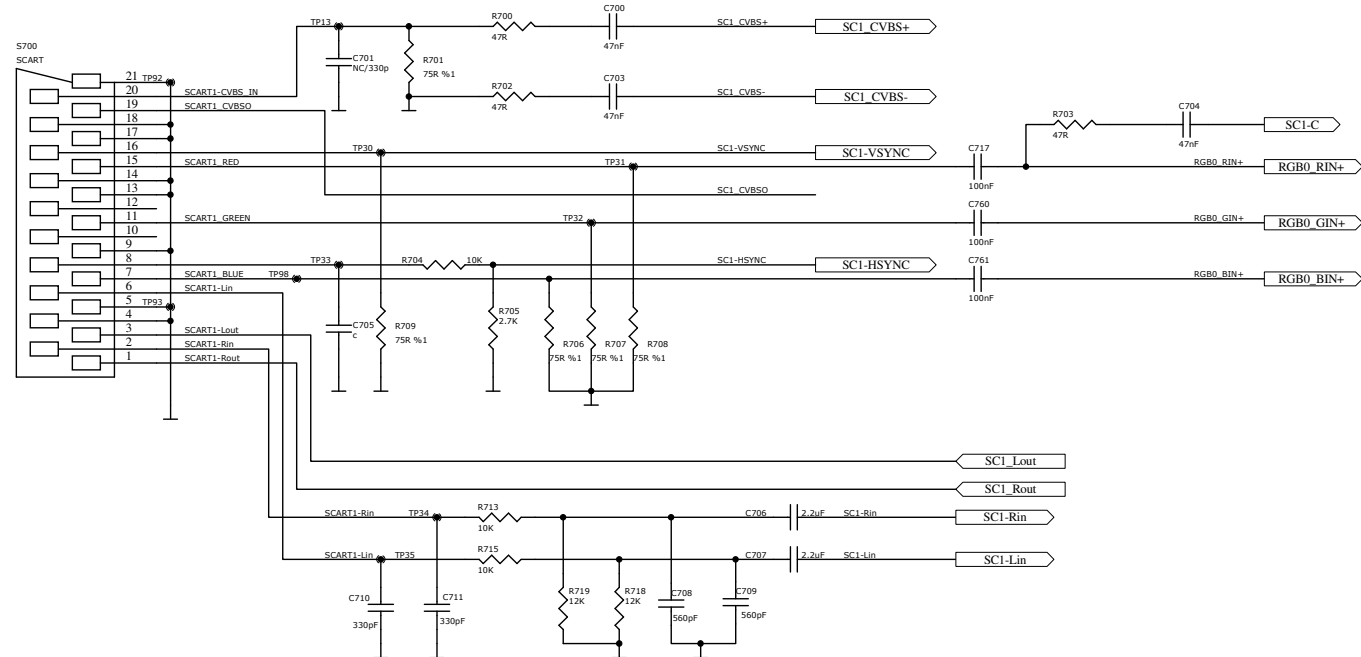


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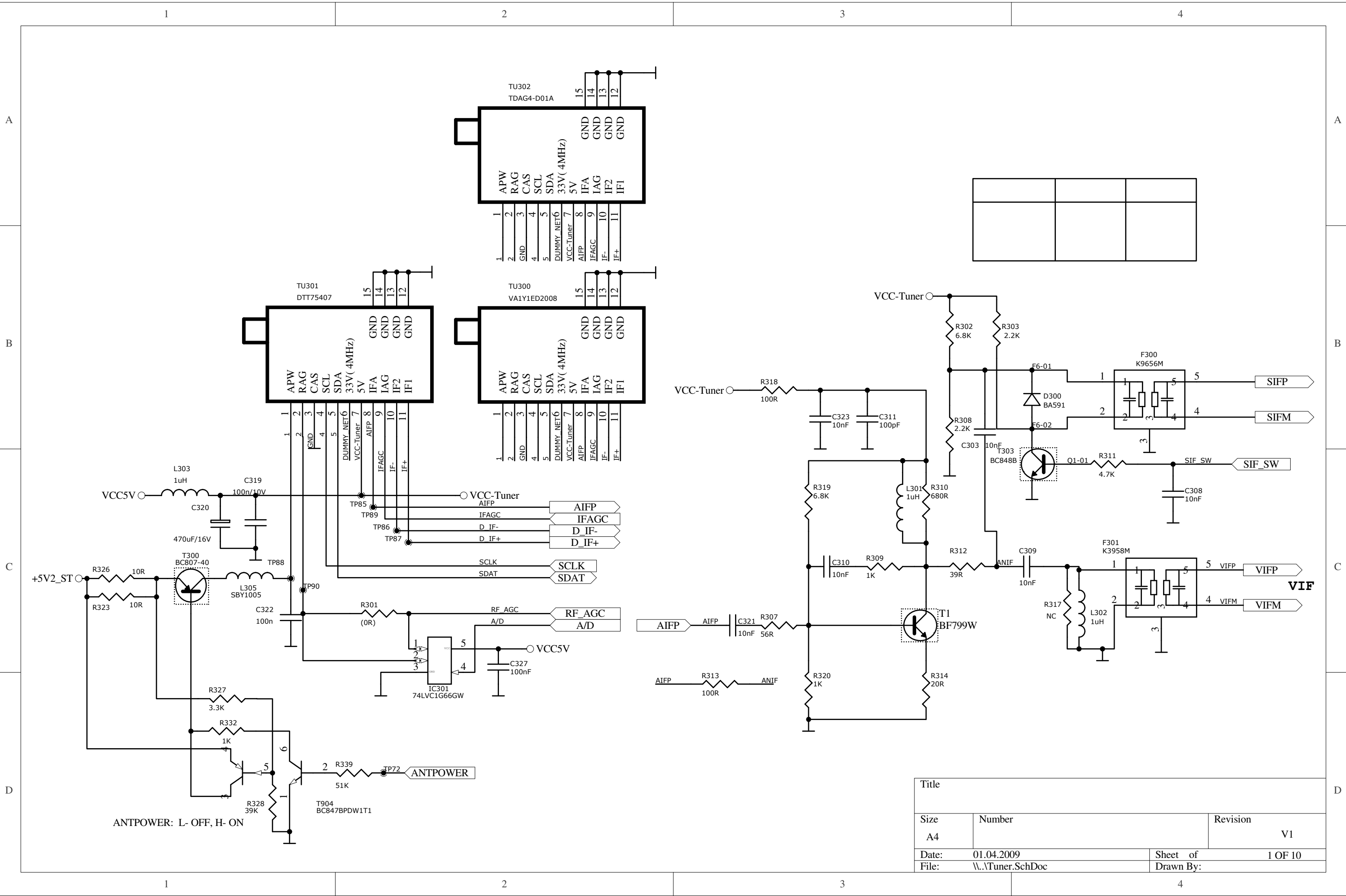


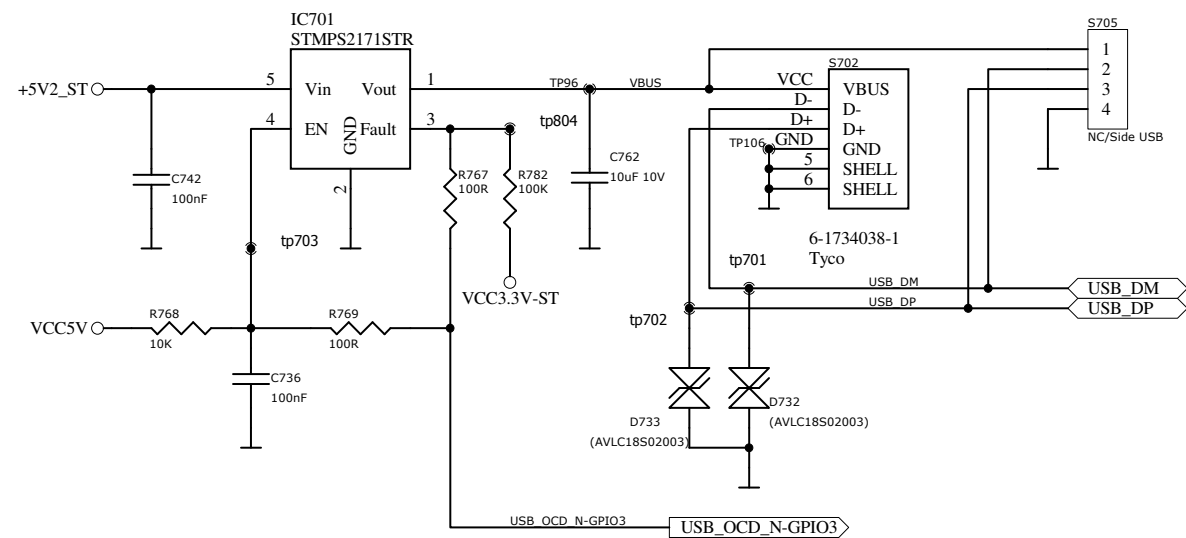
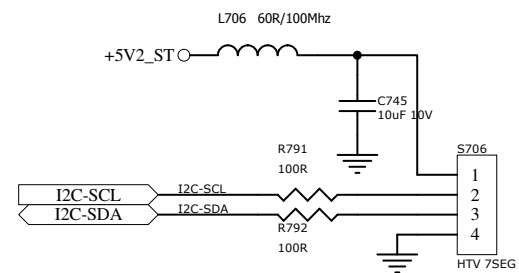
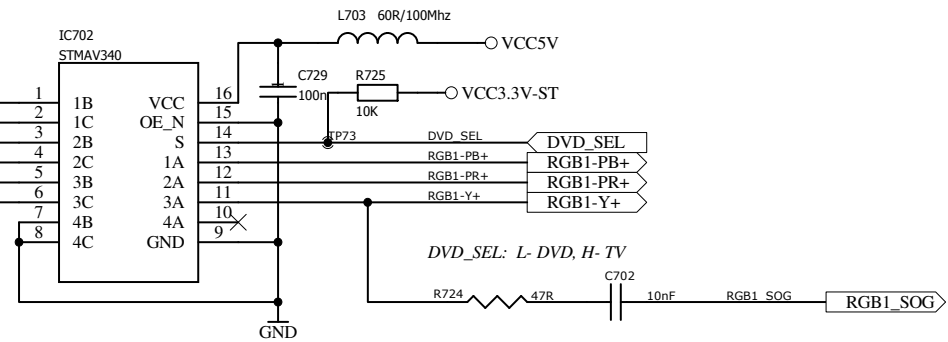


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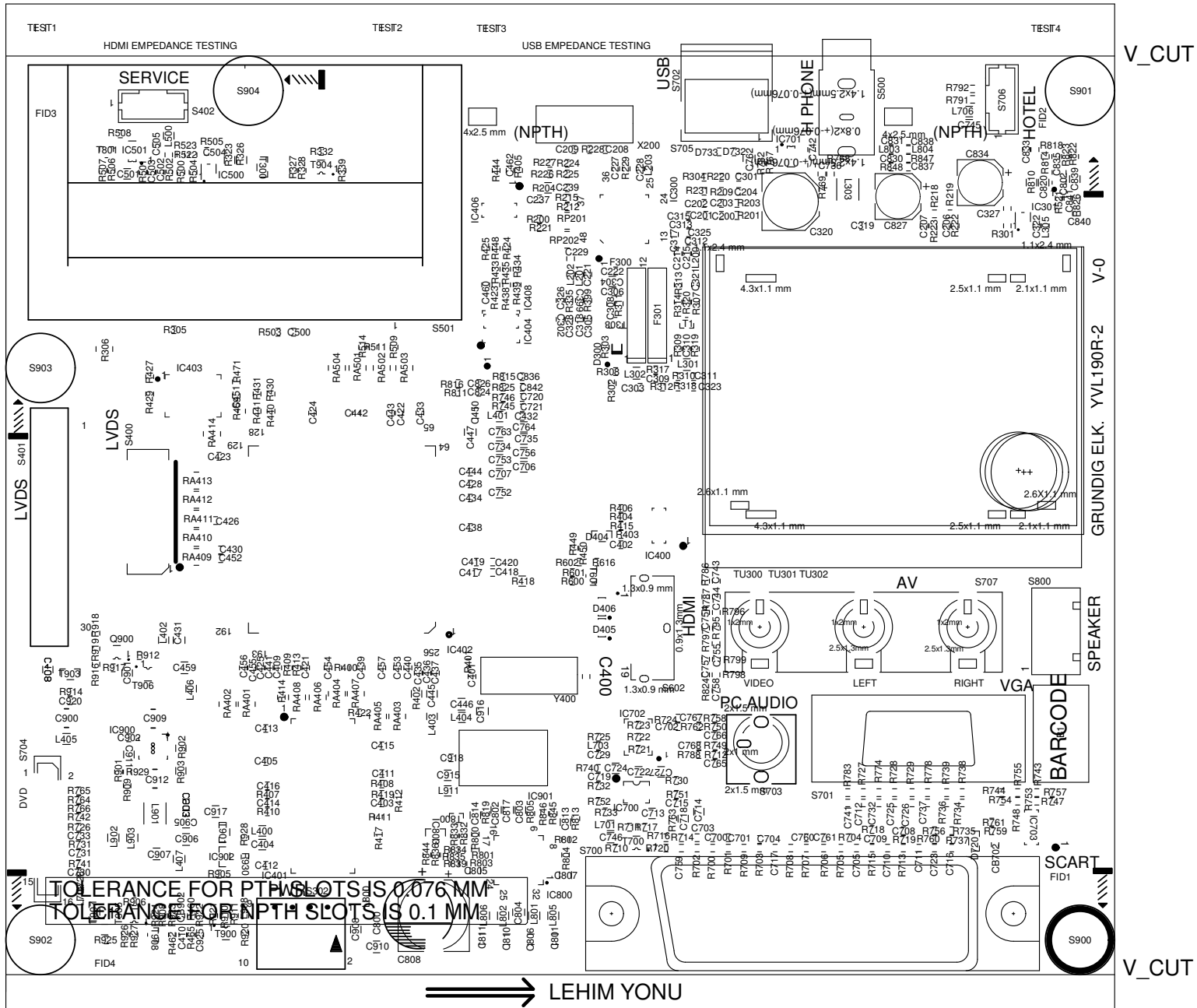


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NOTES (UNLESS OTHERWISE SPECIFIED):

1. ACCEPTABILITY BASED ON IPC 600G CLASS 2
2. REFER TO BOARD STACK UP FOR THE LATIMATE MATERIAL AND THE CORRESPONDING THICKNESS AND THE TARGET IMPEDANCE.
3. THE TRANSMISSION LINE IMPEDANCE SHOULD BE WELL CONTROLLED THE IMPEDANCE SHALL BE MEASURED WITH TIME DOMAIN REFLECTOMETER(TDR) EQUIPMENTS, IMPEDANCE REPORT SHOULD BE SUBMIT.
4. PCB E-TEST SHOULD BE DONE ACCORDING TO IPC-D-356 NETLIST METHOD.
5. TEST ALL BOARDS FOR OPENS AND SHORTS.
6. NO GERBER MODIFICATIONS ALLOWED WITHOUT PRIOR WRITTEN APPROVAL FROM GRUNDIG.

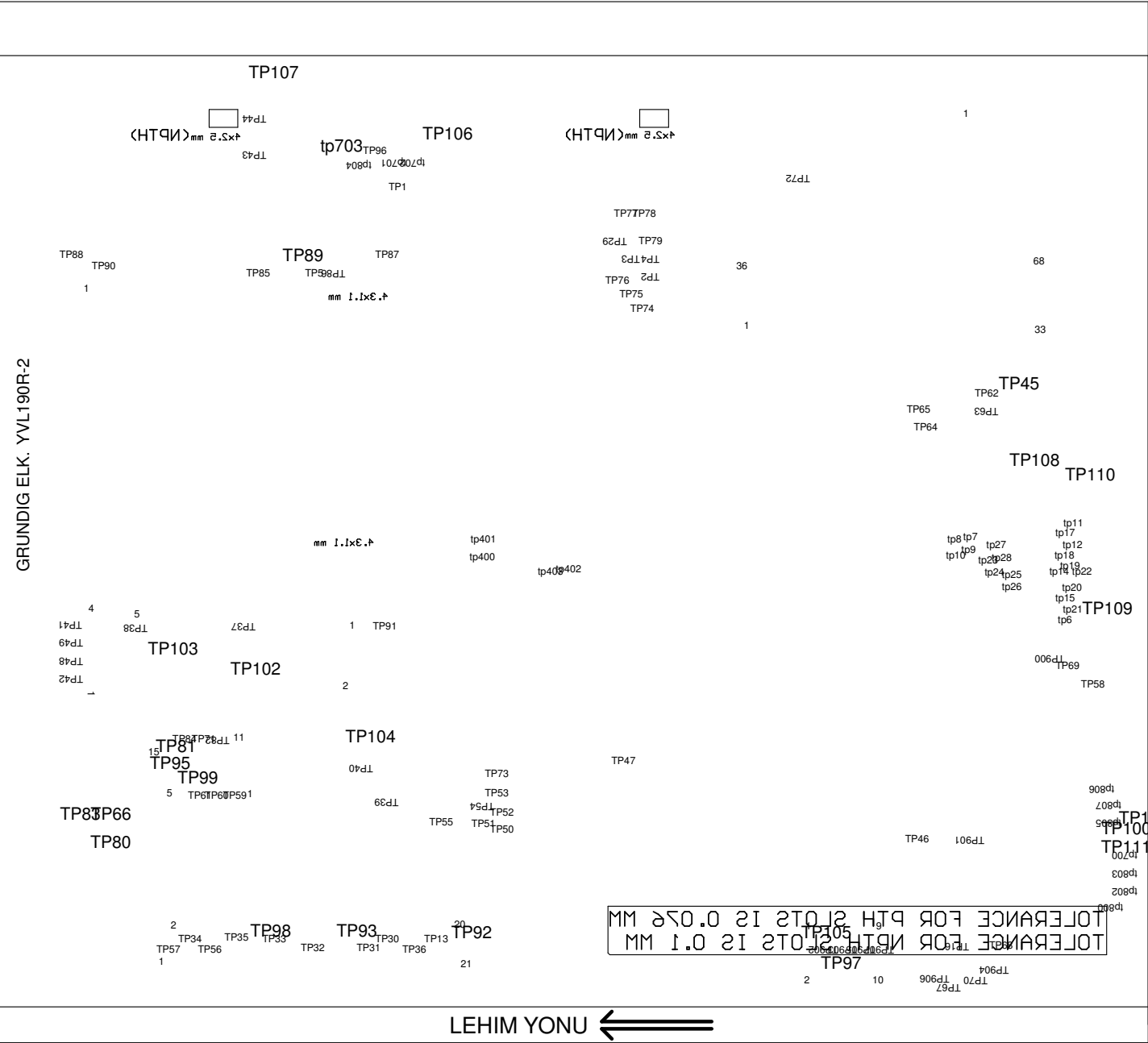
2 Layer Stackup								
Layer	Material	Thickness (MIL)	Dielectric Constant	Solder Mask	Zdiff @ 14.7mil/4.3mil	Zdiff @ 10mil/5mil		Description
1	Copper	1.5	N/A	0.4-0.7 mil	90ohm+-10%	100ohm+-10%		Microstrip
	FR4	57.4	4.3	N/A	N/A	N/A		Pre-preg
2	Copper	1.5	N/A	N/A	90ohm+-10%	N/A		Microstrip



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	LAYER INFO	TOP OVERLAY		GRUNDIG

TUC_V

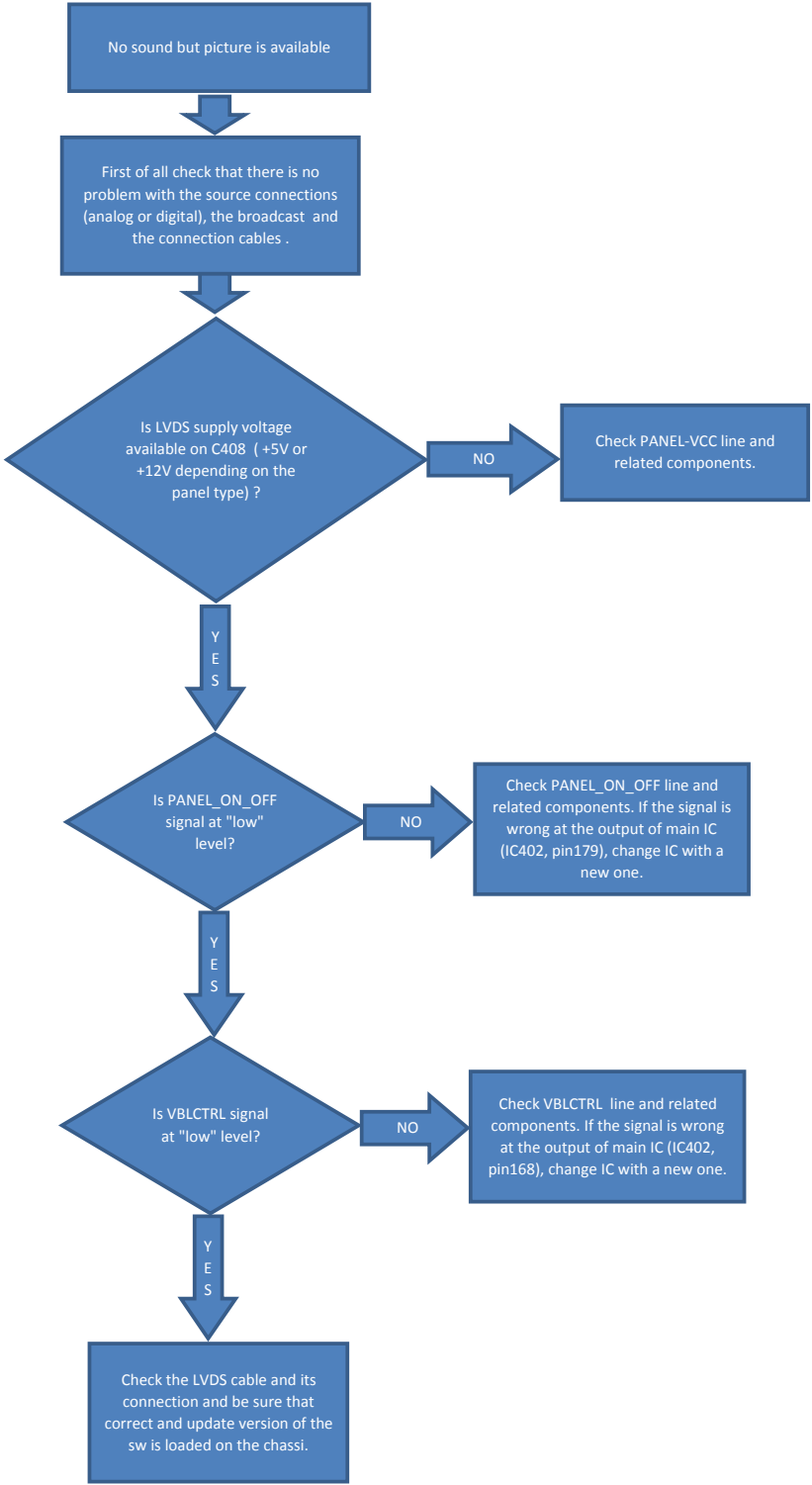
TUC_V



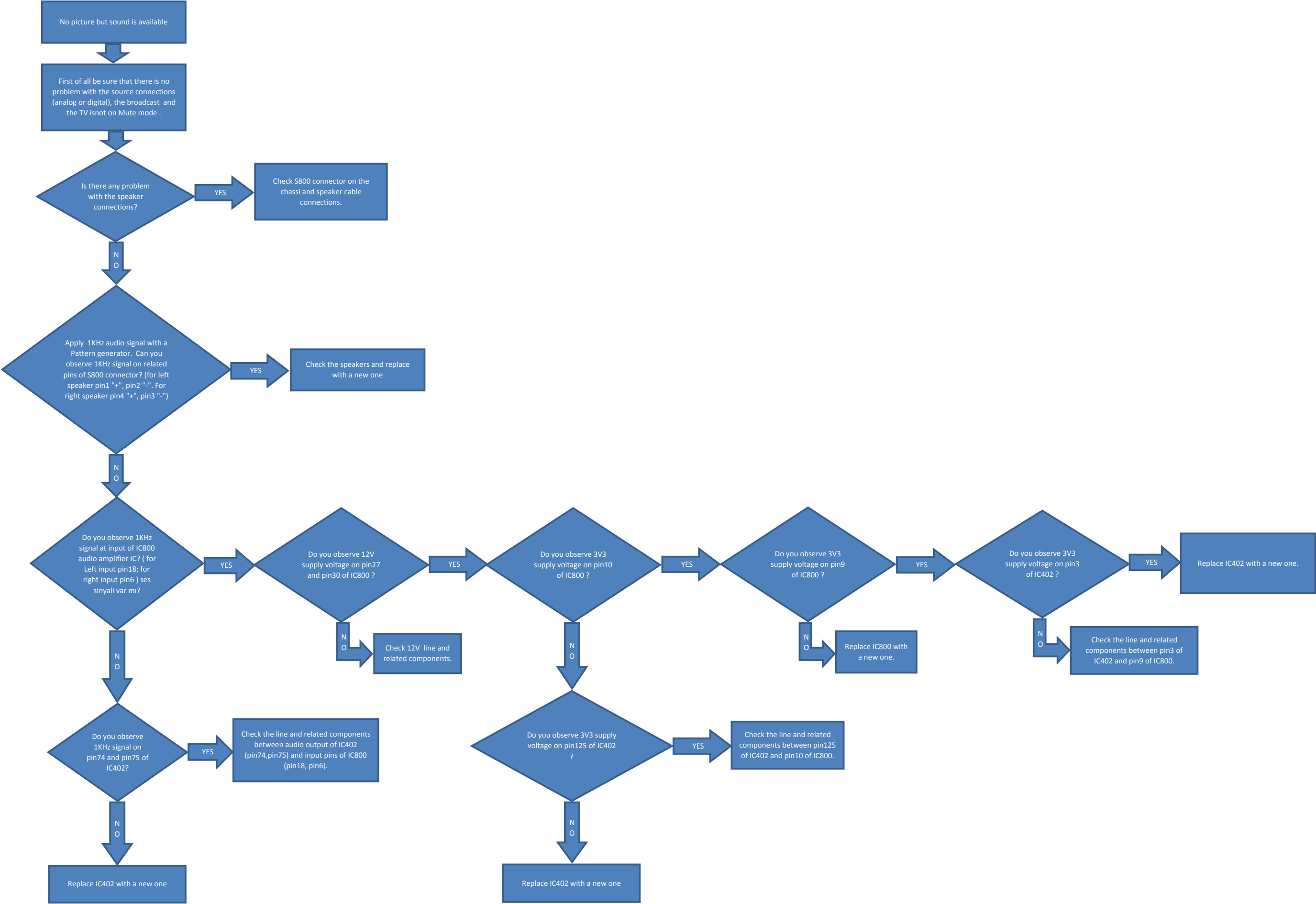
LEHİM YONU ←


T6 CHASSI TROUBLESHOOT

PICTURE



SOUND



		SERVICE BULLETIN
		ELECTRONICS PLANT
DATE	13.11.2009	
BULLETIN NO	ELK- 09/34	
CHASSIS	T6	
SUBJECT	Backlight is on and screen blank or backlight is on and screen changes various colors repeatedly	

DESCRIPTION :

In some 19" TV's with T6 chassis:

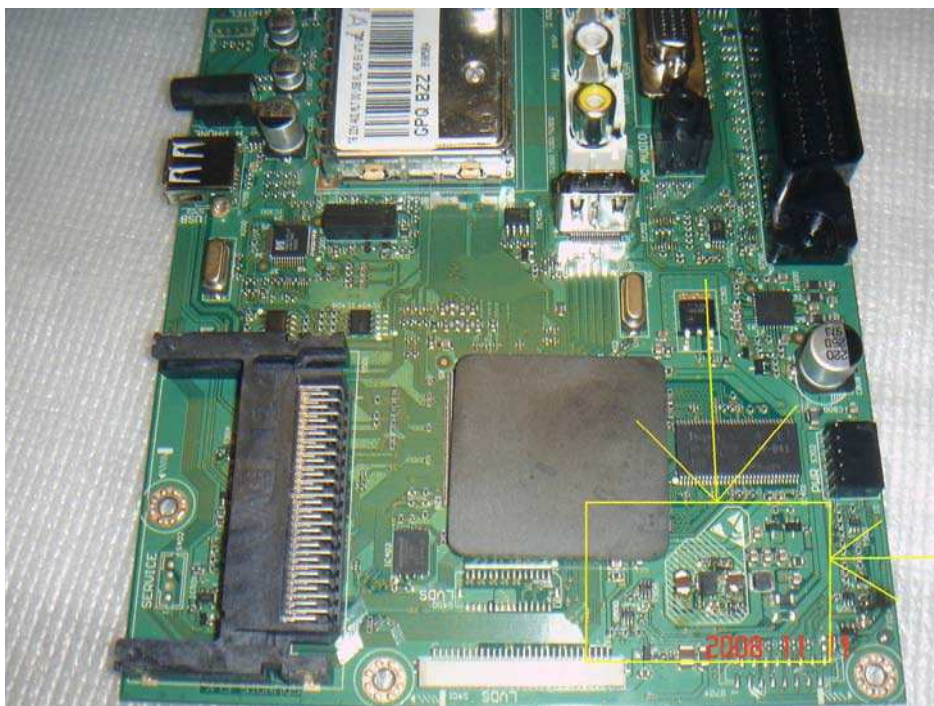
Backlight is on and screen blank or Backlight is on and screen changes various colors repeatedly and

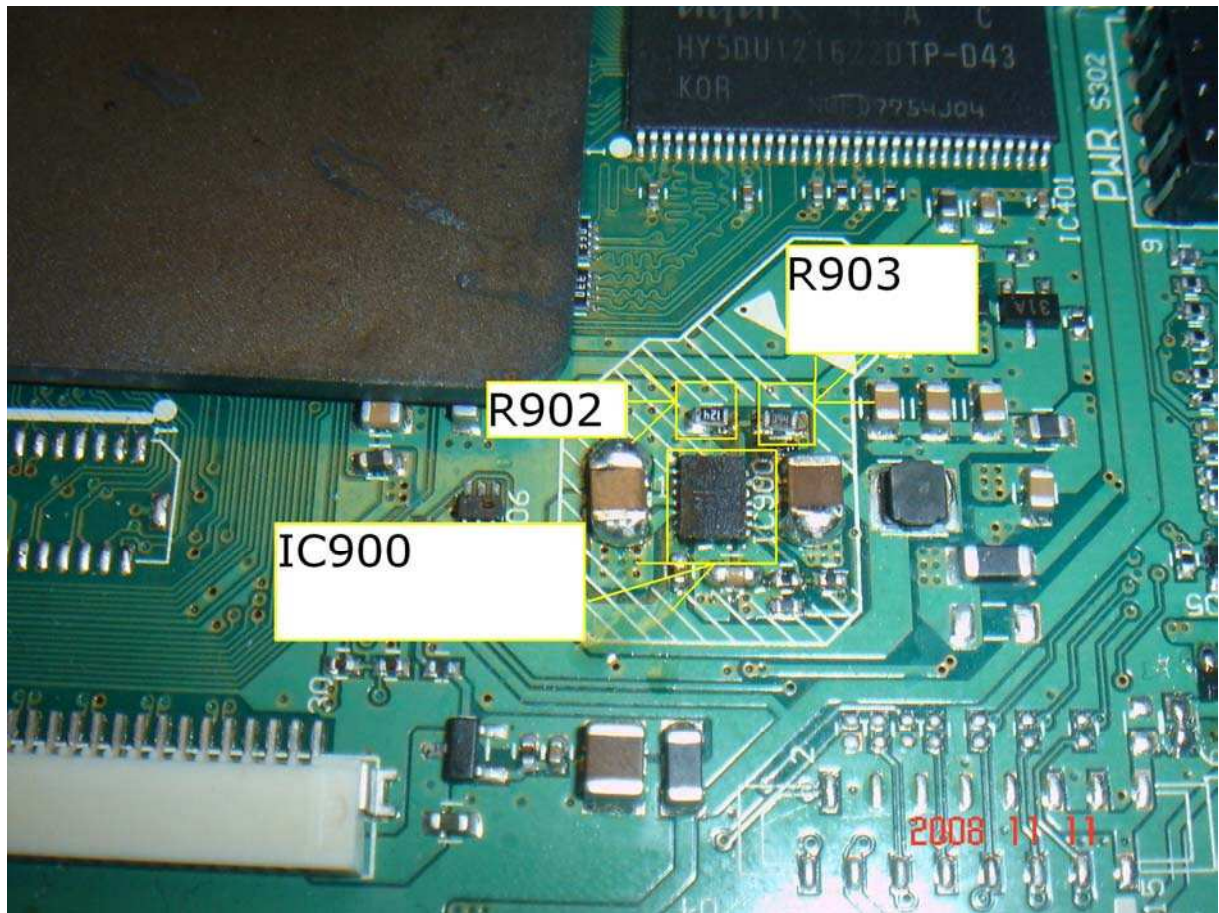
TV set can't control with remote control.

SOLUTION :


To solve the problem:

- Change IC900 with 453763R-1
- Change R902 with 173129R 12k %1
- Change R903 with 173396R 39K %1





Best Regards

		SERVICE BULLETIN
		ELECTRONICS PLANT
DATE	11.03.2010	
BULLETIN NO	ELK- 10/11	
CHASSIS	T6	
SUBJECT	Backlight is on and screen blank or backlight is on and screen changes various colors repeatedly	

DESCRIPTION :

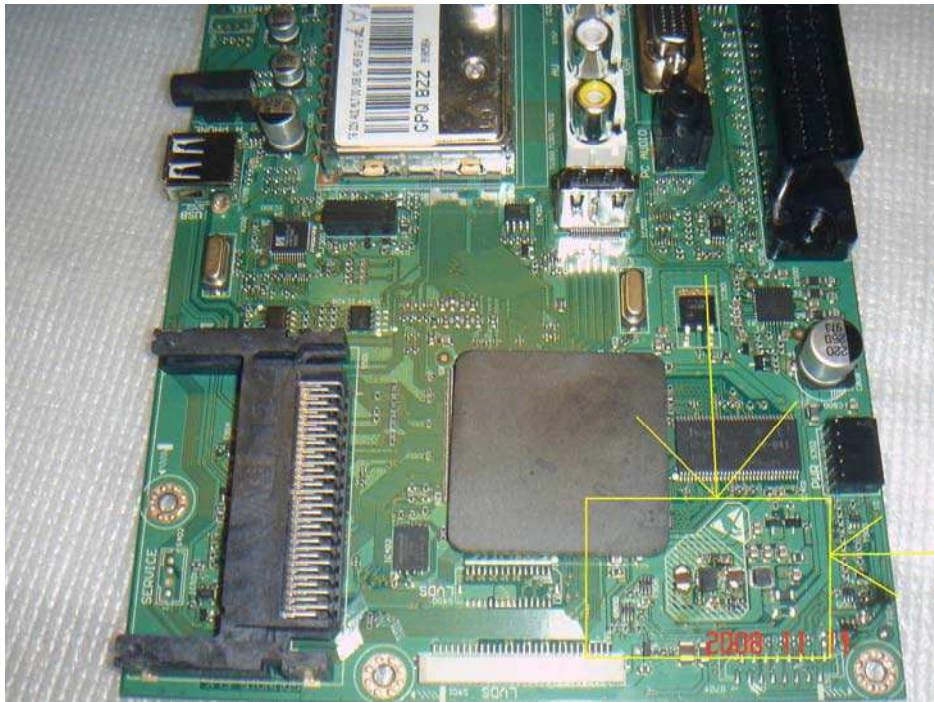
In some TV's with T6 chassis:

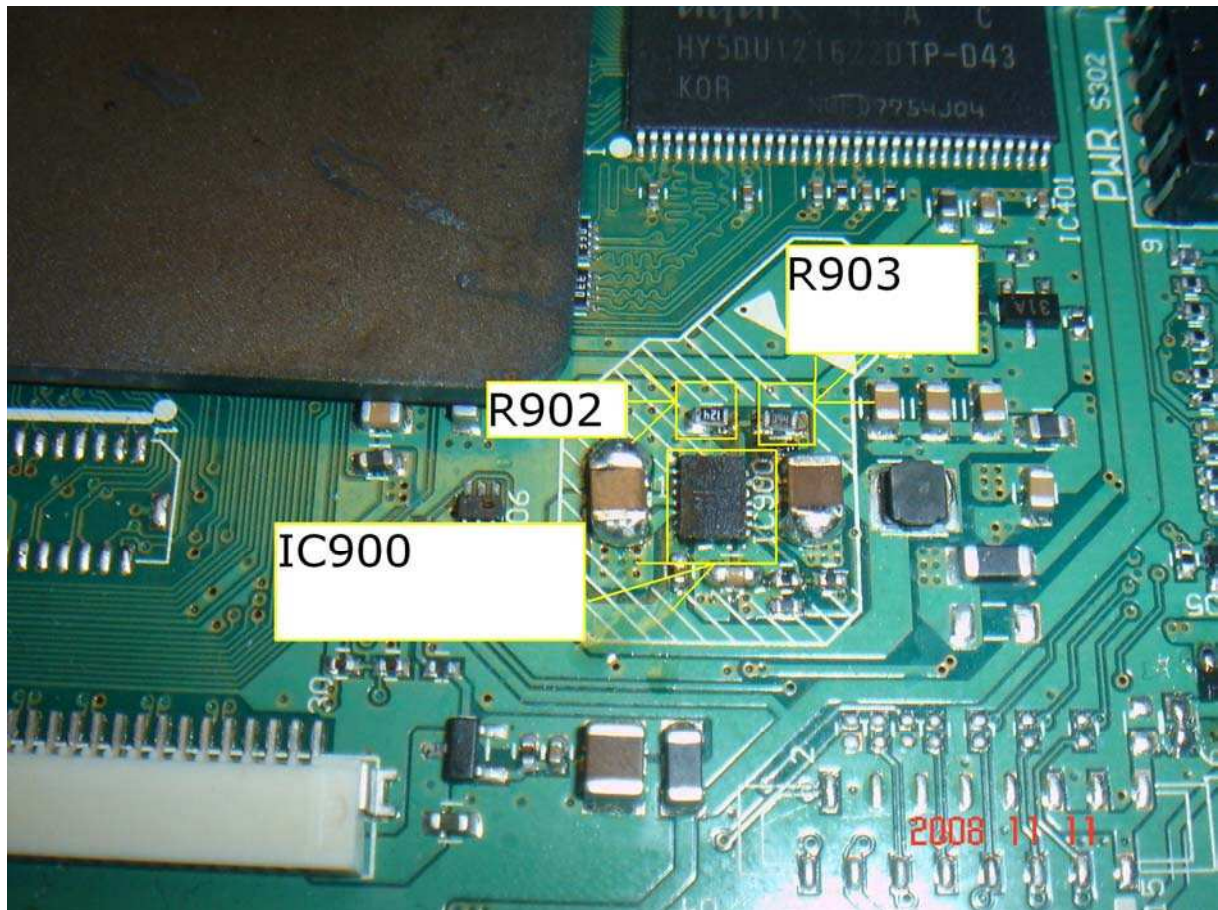
Backlight is on and screen blank or Backlight is on and screen changes repeatedly between various colors and TV set can't control with remote control.

SOLUTION :

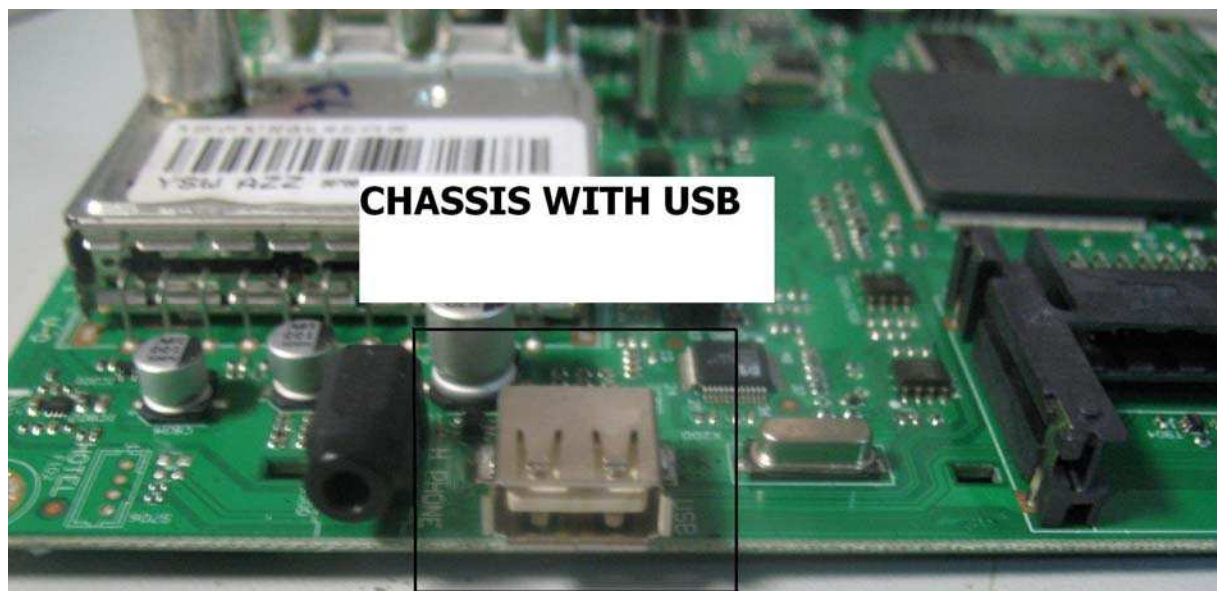
To solve this problem:

- Change IC900 with 453763R-1
- Change R902 with 173129R 12k %1
- Change R903 with 173396R 39K %1

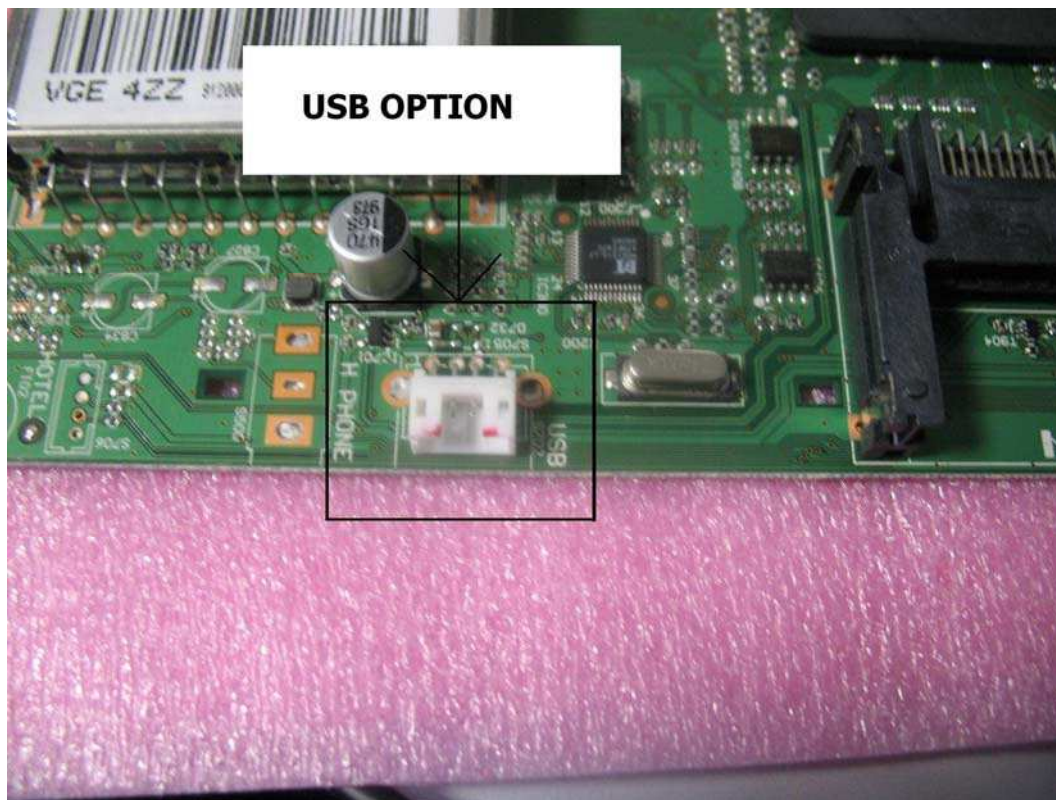




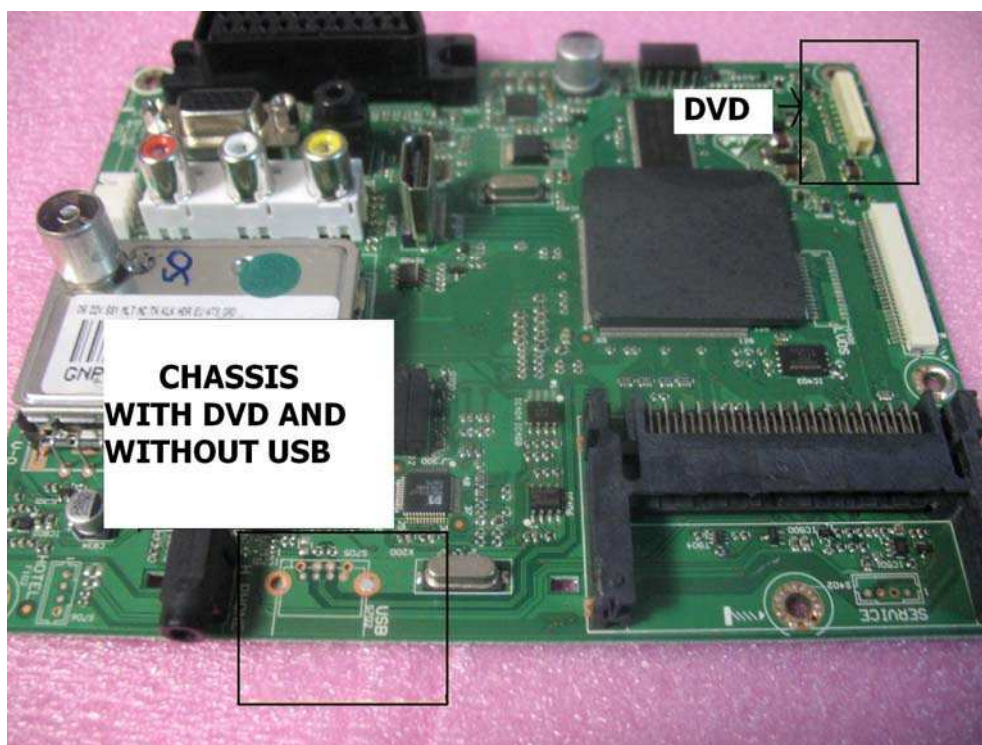
There is extra modification which must be applied also. It depends on the features of the chassis.



With USB

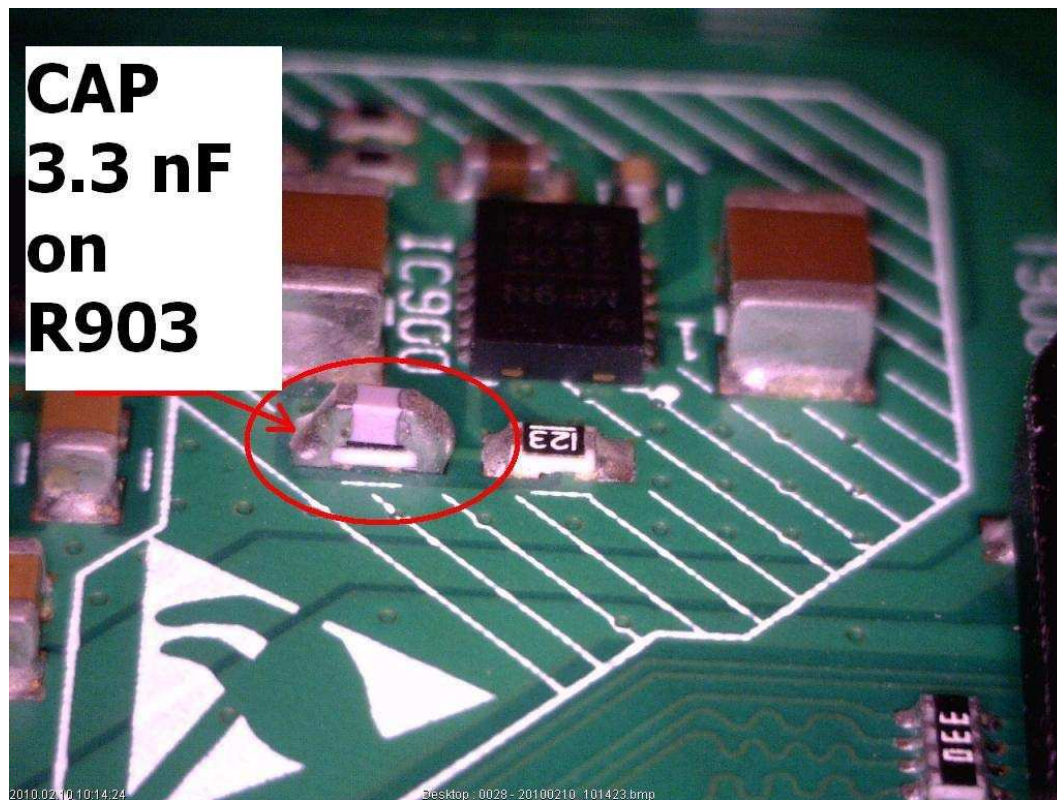


Another chassis with USB(Chamellion)



With DVD

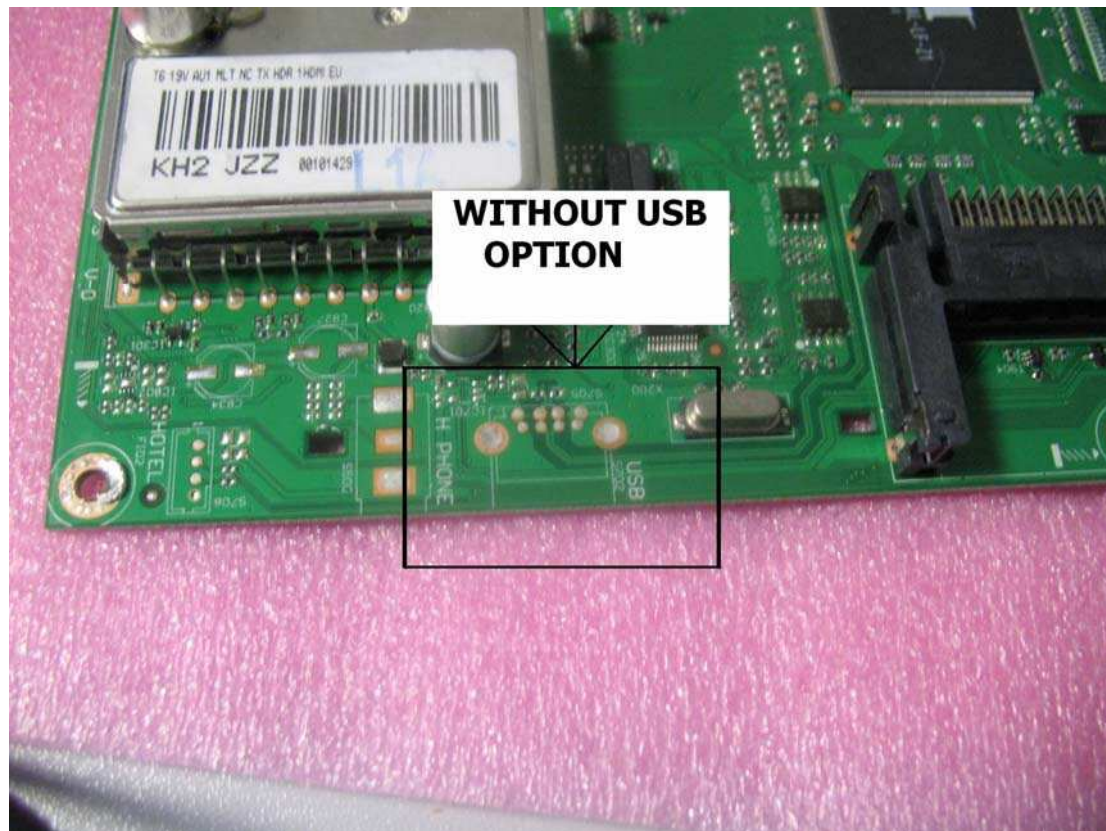
.....
 If the chassis include USB and/or DVD option , followed explained modification must be apply
 292336R Arcelik coded cap must be add manually on to R903.



.....

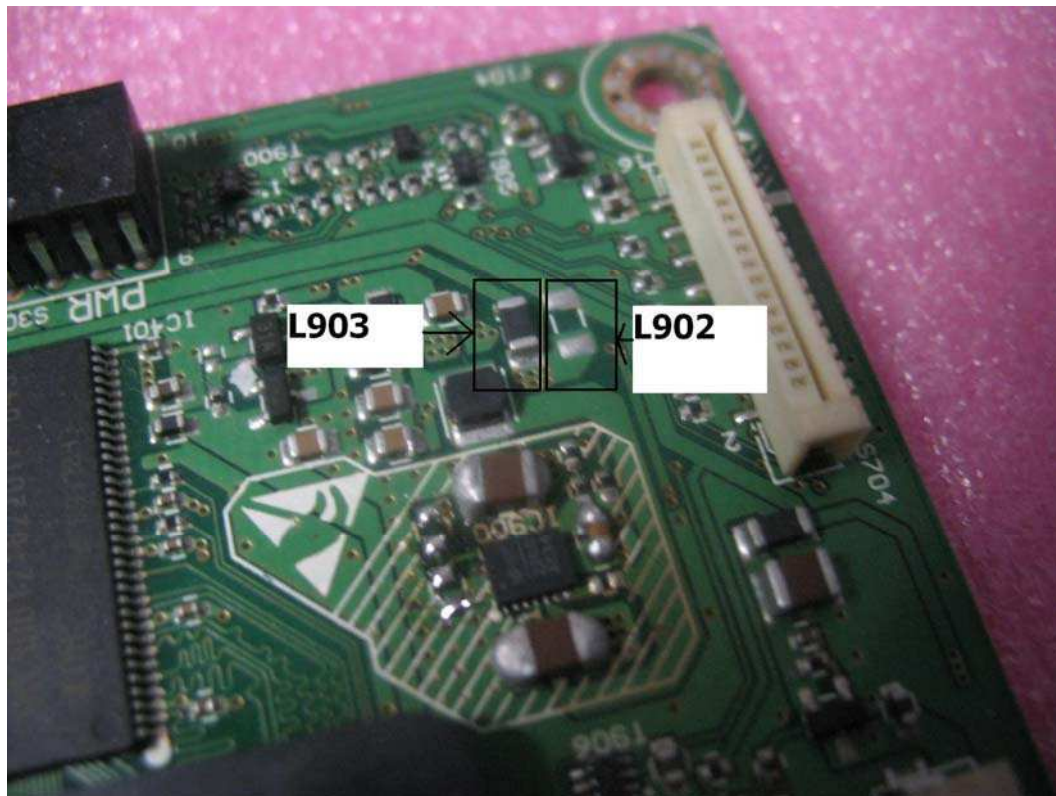
Chassis which hasn't DVD or USB option :

.....




Without USB and without DVD.

.....
Remove L903 and transfer removed component to the L902 or add 055626R Arcelik
coded component to the L902
.....



Best Regards

		SERVICE BULLETIN
		ELEKTRONICS PLANT
TARİH	28.04.2010	
BÜLTEN NO	ELK-10/15	
ŞASI	T6	
KONU	Led is blinking continously and TV doesn't work.	

PROBLEM

Some non USB TV's with T6 chassis. You can see below phenomenon , when you change the mainboard with the new one.

Led is blinking continously and TV can't be controled with the remote or keyboard.

CAUSE

There are some additional currents on 5V line, and DC 5V supply voltage can not be stable.

SOLUTION

- Change the resistor on L2010 from 170232R(39R) to 172283R(27R)



Figure1: Chassis without USB

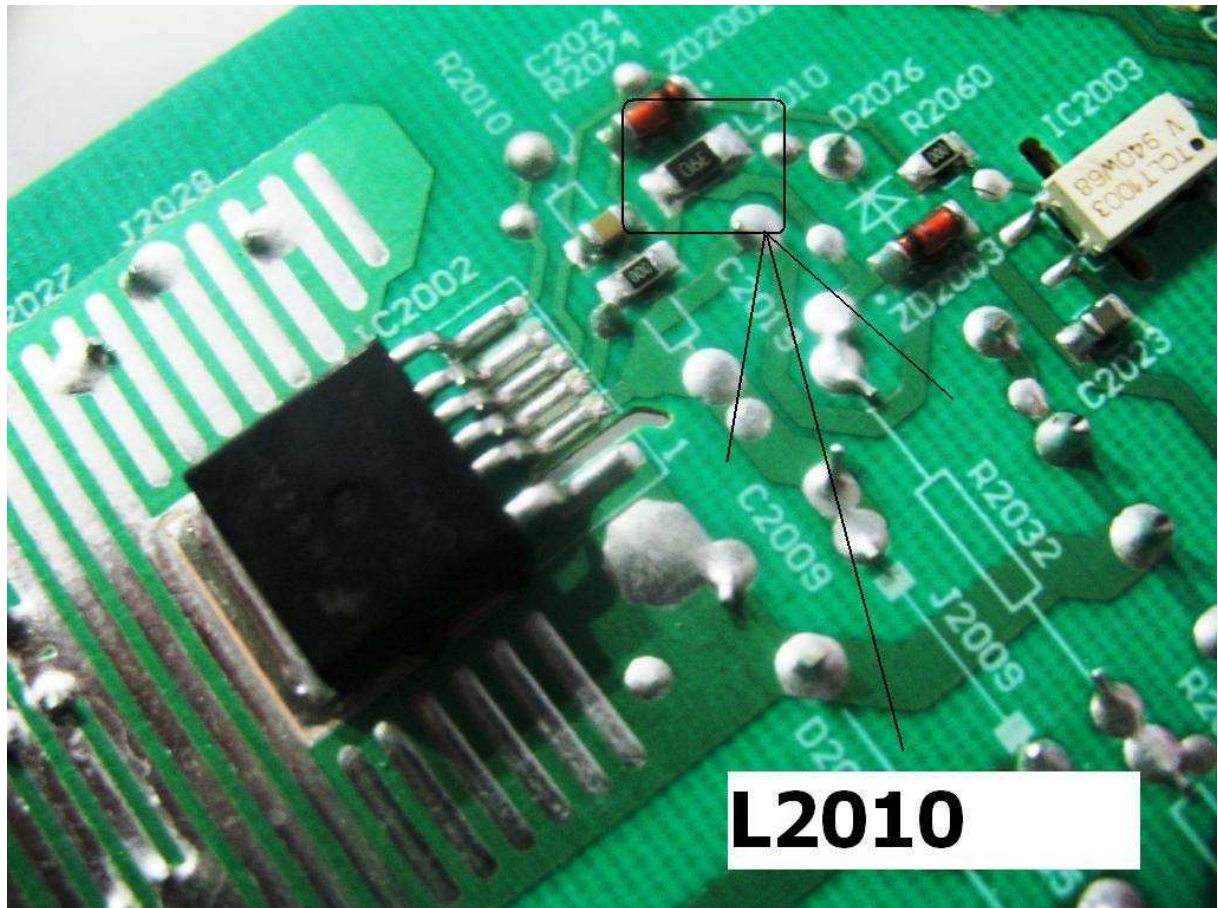



Figure2 : L2010 position on the Power Supply board.

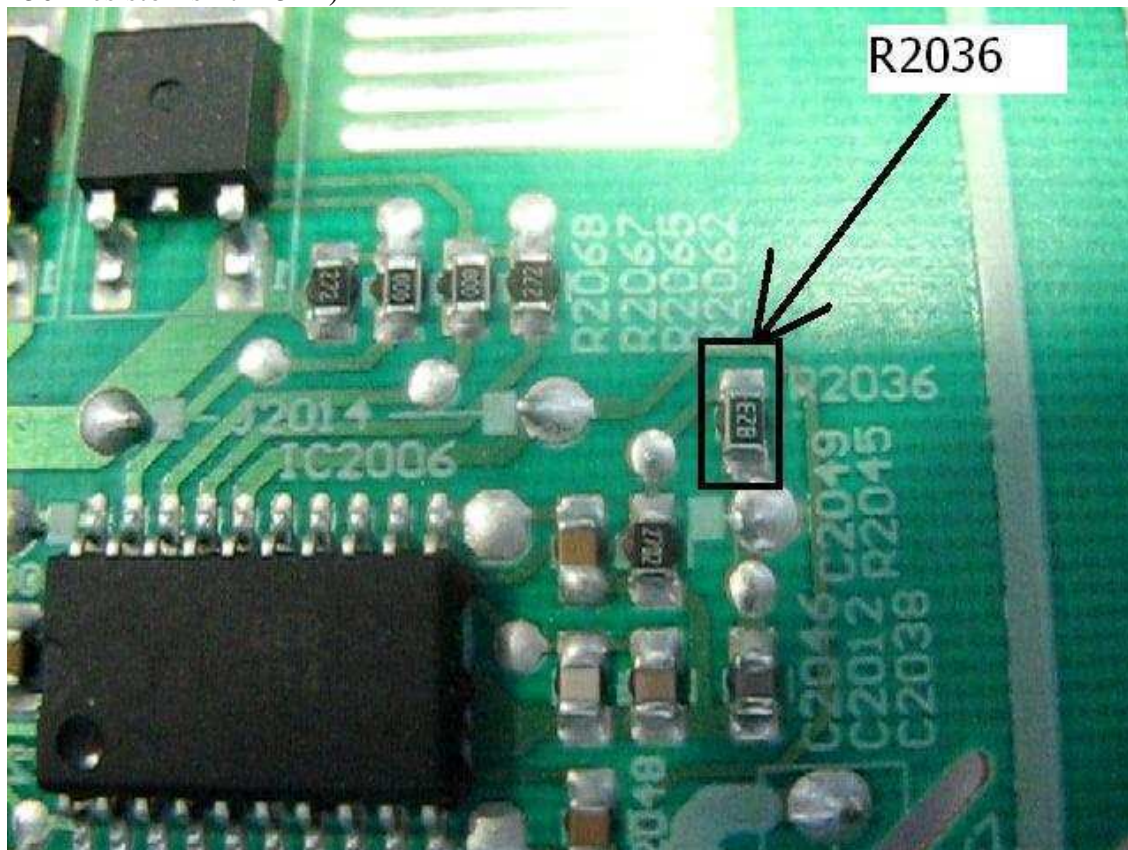
		SERVICE BULLETIN
		ELEKTRONICS PLANT
DATE	11.06.2010	
BULLETIN NO	ELK-10/19	
CHASSIS	T5/T6/D6/DB chassis with 18,5 and 21,6 SS1/SS2 Panel	
SUBJECT	“TV is opening normally but backlight is not open.	

DESCRIPTION

The problem occurs on the some TVs with SS1/SS2 panel. TV looks like opening normally but backlight does not open.

SOLUTION

On the LIPS module resistor positioned R2036 should change 82k to 150k.(Arcelik Code of 150k resistor is 174151R)



With best regards,